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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,430	10/31/2001	Roland M. Hochmuth	10017761-1	2418

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EXAMINER

CHUNG, DANIEL J

ART UNIT	PAPER NUMBER
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2677

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/001,430

**Applicant(s)**

HOCHMUTH ET AL.

**Examiner**

Daniel J. Chung

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1-3 and 5-33 are presented for examination. This office action is in response to the amendment filed on 5-31-2005.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-3, 5-11, and 26-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al. (5,515,511)**

Regarding claim 1, Nguyen et al discloses that the claimed feature of a graphics adapter [i.e. "C-box"; 10], comprising: a frame buffer [i.e. "supporting memory" in "system controller"; 101]] operable to store graphics image data [i.e. "video data"] rendered by the graphics adapter [i.e. "video compositor"; 108, "video special effects"; 109]; and a network chip [103-105,112-114] coupled to the frame buffer, the network chip comprising: a compression unit [112-114] operable to compress graphics image

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data of frame buffer into compressed graphics image data; and a network interface [103-105] operable to receive at least a portion of compressed graphics image data, network interface further operable to format received compressed graphics image data into a plurality of packets for transmission over a communication network [12]. (See Abstract, Fig 1, col 2 line 36-61, col 3 line 38-59, col 4 line 18-26)

Regarding claim 2, Nguyen et al discloses that a network interface port [i.e. "network port"; 12] coupled to network interface [103-105], plurality of packets being transmitted from network interface to communication network via network interface port. (See Fig 1, col 2 line 36-61)

Regarding claims 3 and 7, Nguyen et al fails to disclose that network interface port is selected from the group consisting of an Ethernet port, an Infiniband port, and a wireless network transceiver, and video transmitter is selected from the group consisting of a RAMDAC and a DVI transmitter. However, such features are well-known (commercially available) in an analogous art, in order to permit many more modes which can be placed farther apart, to fully support additional bandwidth, to conveniently interconnect each nodes without physical link cables, to improve compatibility of both analog and digital graphic data, in developing a channel-based, switched-network-topology interconnect standard. Therefore, it would have been obvious to incorporate the above features into the teaching of Nguyen et al for performing a digital video system with optimization.

Regarding claim 5, Nguyen et al discloses that network interface [103-105] further operable to receive compressed graphics image data ["MPEG"] from compression unit [112-114]. (See Fig 1, col 2 line 36-61)

Regarding claim 6, Nguyen et al discloses that a video transmitter [" transmitter"] operable to transmit graphics image data from frame buffer to a processor-based system [i.e. "system controller"; 101] associated with graphics adapter [108,109]. (See Fig 1, col 2 line 36-61)

Regarding claims 8-9, Nguyen et al discloses that a video output port [12] coupled to video transmitter [" transmitter"], graphics image data being transmitted from frame buffer via video output port, which video output port [12] is selected from the group consisting of an analog video port and a digital video port. (See Fig 1, col 2 line 36-61)

Regarding claims 10-11, Nguyen et al discloses that plurality of packets being transmitted to at least one destination device, and a first selected plurality of plurality of packets is for transmission to a first destination device and a second selected plurality of plurality of packets is for transmission to a second destination device. (See Fig 1)

Regarding claims 26-27, claims 26-27 are similar in scope to the claims 1-2, and thus the rejections to claims 1-2 hereinabove are also applicable to claims 26-27.

Regarding claim 28, claim 28 is similar in scope to the claim 3, and thus the rejections to claim 3 hereinabove is also applicable to claim 28.

Regarding claim 29, claim 29 is similar in scope to the claim 1, and thus the rejections to claim 1 hereinabove is also applicable to claim 29.

Regarding claim 30, refer to the discussion for the claim 1 hereinabove, Nguyen et al discloses that the graphics unit and the network interface are disposed on a network attachable graphics chip [108-109]. (See Fig 1)

Regarding claim 31, claim 31 is similar in scope to the claim 2, and thus the rejections to claim 2 hereinabove is also applicable to claim 31.

Regarding claim 32, refer to the discussion for the claim 1 hereinabove, Nguyen discloses that the graphics unit adapted to render the graphics image data based on an instruction fro a source device for the graphics image data. (See Fig 1)

Regarding claim 33, Nguyen et al discloses that the network interface is operable to format compressed graphics image data received from frame buffer into a plurality of packets. (See Fig 2-5)

**Claims 1, 26 and 29 are once again rejected under 35 U.S.C. 102(e) as being anticipated by Park. (US 2002/0059589)**

Regarding claim 1, Park discloses that the claimed feature of a graphics adapter [i.e. "internet module"; 10], comprising: a frame buffer [i.e. "memory unit"; 12] operable to store graphics image data rendered by the graphics adapter [i.e. "graphic processing unit"; 16]; and a network chip coupled to the frame buffer [12], the network chip comprising: a compression unit [i.e. "NTSC encoder"; 17] operable to compress graphics image data of frame buffer into compressed graphics image data; and a network interface [i.e. "network adapter"; 11] operable to receive at least a portion of compressed graphics image data, network interface further operable to format received compressed graphics image data into a plurality of packets for transmission over a communication network [i.e. "PSTN/LAN/Cable"]. (See Abstract, Fig 1, Fig 2, [7])

Regarding claims 26 and 29, claims 26 and 29 are similar in scope to the claim 1, and thus the rejections to claim 1 hereinabove is also applicable to claims 26 and 29.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 12-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al in view of Schneider et al. (6,304,895)**

Regarding claim 12, Nguyen et al does not specifically disclose that "logically dividing a frame buffer of a graphics adapter into a plurality of segments,." However, such limitation is shown in the teaching of Schneider et al. ['memory is physically divide into pages' within video adapter of computer; See col 12 line 43-col 13 line 23] It would have been obvious to one skilled in the art to incorporate the teaching of Schneider et al into the teaching of Nguyen et al, in order to improve the performance of memory with faster identification/retrieval of graphic data, as such improvement is also advantageously desirable in the teaching of Nguyen et al for performing the video distribution system with optimization.



Regarding claim 13, Nguyen et al discloses that transmitting plurality of packets to destination device over communication network. (See Fig 1)

Regarding claims 14-15, refer to the discussion for the claim 12 hereinabove, Schneider et al further discloses that receiving an update request from destination device of plurality of destination devices prior to selecting step and selecting step comprising selecting, in response to receiving update request, segment of plurality of segments corresponding to destination device of plurality of destination devices. (See col 14 line 8-25, col 14 line 58-col 15 line 32)

Regarding claims 16-17, Nguyen et al discloses that adding identification information identifying destination device to each of plurality of packets, where identification information is an Internet Protocol (IP) address of destination device. (See Fig 7-9)

Regarding claim 18, Nguyen et al discloses that transmitting plurality of packets to another destination device of plurality of destination devices. (See Fig 1)

Regarding claim 19, refer to the discussion for the claim 12 hereinabove, Nguyen et al does not specifically discloses that "comparing graphics image data of a new image for a particular destination device of a plurality of destination devices with

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graphics image data of a previous image for particular destination device stored in a frame buffer of a graphics adapter remote from particular destination device; selecting blocks of graphics image data of new image that are different from corresponding blocks of graphics image data of previous image.” However, such limitations are shown in the teaching of Schneider et al. (See col 8 line 25-42) It would have been obvious to one skilled in the art to incorporate the teaching of Schneider et al into the teaching of Nguyen et al, in order to communicate the graphical data with reducing the size of graphic data and minimizing the usage of bandwidth, where image update or modification is required within the network, as such improvement is also advantageously desirable in the teaching of Nguyen et al for transmitting of the updated/requested digital data with faster time at the reduced hardware (i.e. bandwidth).

Regarding claim 20, Nguyen et al discloses that transmitting plurality of packets to particular destination device over communication network. (See Fig 1)

Regarding claim 21, Nguyen et al discloses that compressing [114] selected blocks of graphics image data prior to formatting selected blocks of graphics image data. (See Fig 1, col 2 line 36-61)

Regarding claims 22-24 Nguyen et al discloses that adding identification information identifying selected blocks to plurality of packets and identification information comprises block numbers for selected blocks and coordinate information for

a plurality of corners of selected blocks. (See Fig 1, col 2 line 36-61)

Regarding claim 25, Nguyen et al discloses that waiting for a request for graphics image data from at least one of at least one destination device. (See Fig 1)

### ***Response to Arguments/Amendments***

Applicant's arguments with respect to claims 1-3 and 5-33 have been considered but are moot in view of the new ground(s) of rejection. Specifically, the cited references (Nguyen et al, Park) disclose that "graphics image data rendered by the graphics adapter", by implementing a graphic processing unit within a video network chip. (See Abstract, Fig 1, col 2 line 36-61, col 3 line 38-59, col 4 line 18-26 in Nguyen et al, Also See Abstract, Fig 1, Fig 2, [7] in Park) See the rejection hereinabove.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (571) 272-7657. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (571) 272-7664.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**571-273-8300 (Central fax)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

djc  
August 9, 2005



**MICHAEL RAZAVI**  
**SUPERVISORY PATENT EXAMINER**  
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